

# SECOND IEEE INTERNATIONAL CONFERENCE ON SPACE MISSION CHALLENGES FOR INFORMATION TECHNOLOGY (SMC-IT)

ONLINE REGISTRATION DEADLINE: JULY 9, 2006

PASADENA CONFERENCE CENTER  
PASADENA, CALIFORNIA

[HTTP://SMC-IT.JPL.NASA.GOV](http://SMC-IT.JPL.NASA.GOV)

# SMC-IT

JULY 17 - 20, 2006

## TOPICS OF INTEREST

- Reliable software and innovative fault tolerance approaches, including software-based methods
- Autonomy - rovers to operations
- Autonomy - system validation
- Automated planners and schedulers
- Human robotic interfaces
- Engineering design and modeling tools
- IT tools for risk management
- Innovative IT methods for rapid technology mission infusion
- Real-time information systems
- Embedded IT systems (for control or onboard processing)
- Machine vision and advanced image processing methods
- Real-time software and IT hardware in the loop
- Novel applications - spacecraft, ground systems, telecom
- IT for low cost operations
- OOD methods that enhance reuse
- Middleware services
- Knowledge capture, management, and ontologies
- On-board vehicle health diagnosis and repair
- Reducing software development costs and risk through CMMI
- Science and user software applications
- IT for the Interplanetary Network and next generation space-based networking
- New software architectures, languages, compilers, tools for space missions
- Spaceborne computing architectures
- Advanced high performance computing systems and applications
- Revolutionary new information technologies



## CONFERENCE CHAIRS

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## EXHIBITS

For information on exhibiting at  
SMC-IT 2006 please contact Patricia Elson at:  
(1-650) 604-4498 or [pelson@mail.arc.nasa.gov](mailto:pelson@mail.arc.nasa.gov)

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## 2006

The Second IEEE International Conference on Space Mission Challenges for Information Technology (SMC-IT) is the first forum to gather system designers, engineers, scientists, practitioners, and space explorers for the objective of advancing information technology for space missions. The forum will provide an excellent opportunity for fostering technical inter-change on all hardware and software aspects of IT applications in space missions. The conference, held in the beautiful city of Pasadena, California, will focus on current IT practice and challenges as well as emerging information technologies with applicability for future space missions.

## KEYNOTE SPEAKERS



Vint Cerf  
"Co-Father of the Internet"  
Chief Internet Evangelist, Google



Eric De Jong  
JPL



Gerard Holzmann  
JPL



Adrian Hooke  
JPL



Scott Hubbard  
Carl Sagan, Chair,  
SETI Institute



Andrew Kalman  
President and  
Chief Technology Architect  
Pumpkin, Inc.



Steve Kilston  
Ball Aerospace  
& Technologies Corp.



Marcia McNutt  
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Hans Koenigsmann  
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Richard M. Satava  
MD, FACS  
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Lt. Gen. (Ret.) Eugene Tattini  
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Jet Propulsion Laboratory

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